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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/532,837 | 03/21/2000 | William T. Clark | M0506/7021 | 7155 |

7590 11/23/2001

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EXAMINER

NGUYEN, CHAU N

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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2831

DATE MAILED: 11/23/2001

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/532,837

Applicant(s)

CLARK ET AL.

Examiner

Chau N Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 October 2001.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 19-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 19-25, 27 and 29-31 is/are rejected.
- 7) ☒ Claim(s) 26 and 28 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 02 October 2001 is: a) ☒ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 19-22 and 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bleich et al. (5,576,515) in view of Prudhon (5,952,615).

Bleich et al. discloses an unshielded data cable comprising a plurality of twisted pairs of conductors and a non-conductive outer jacket, wherein the cable does not include a shield that encloses any of the conductors.

Bleich et al. does not disclose a central core having a surface that defines channels within which the pairs are individually disposed.

Prudhon discloses a cable comprising a central core having a surface that defines channels within which a plurality of pairs are individually disposed, the core comprising a plurality of fins extending outwardly from the center of the core to at least an outer boundary defined by an outer dimension of the pairs, the fins having substantially parallel sides, each fin extending from the center of the core at substantially right angle to the other fins, the plurality of channels being defined by the plurality of fins, and the plurality of fins positioning the plurality of twisted pairs in a substantially 90° relationship.

It would have been obvious to one skilled in the art to include the central core as taught by Prudhon into the cable of Bleich et al. to separate the pairs from each other to reduce cross-talk among the pairs as taught by Prudhon.

4. Claims 23, 24 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bleich et al. in view of Prudhon as applied to claim 19 above, and further in view of Hawley.

The modified cable of Bleich et al. discloses the central core being formed of a solid polymer and having a filler which is carbon black to render the core conductive (see Prudhon Fig. 2). The modified cable of Bleich et al. does not disclose the core being formed of fluoropolymer or a fire resistant plastic. Hawley discloses fluoropolymer being a known material for being used in wire and cable insulation and being a noncombustible (fire resistant) material. Therefore, it would have been obvious to one skilled in the art to use fluoropolymer for the modified central core of Bleich et al. since fluoropolymer is a noncombustible material as taught by Hawley.

5. Claims 25 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bleich et al. in view of Prudhon as applied to claim 19 above, and further in view of Gaeris et al.

Gaeris et al. discloses a cable comprising a central core including a central cavity in which a drain wire is disposed (col. 4, line 65). It would have been obvious to one skilled in the art to provide the modified central core of Bleich et al.

with a central cavity such that a drain wire (a metallic wire) or a strength member can be disposed to provide a grounding connection to the cable or to further support the finned element as taught by Gaeris et al.

Allowable Subject Matter

6. Claims 26 and 28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter: the prior art of record does not teach or suggest a cable comprising features as recited in claim 19 and in combination with a fiber optic element being disposed within the cavity (re claim 26) and the tip of each fin being bent by the outer jacket (re claim 28).

Response to Arguments

8. Applicant's arguments filed Oct. 2, 2001 have been fully considered but they are not persuasive.

In response to applicant's argument that the Office Action fails to provide any evidence of any motivation or suggestion in the references or in the art to make

the asserted combination of the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the motivation to combine the references is found in the references themselves. Specifically, Bleich et al. teaches a telecommunication, and Prudhon also teaches a communication cable with low crosstalk by having a central rod (see Prudhon, col. 1, lines 6-10 and col. 2, lines 13-14). Accordingly, it would have been obvious to one skilled in the art to use the central rod taught by Prudhon in the cable of Bleich et al. to reduce the crosstalk among the twisted pairs.

Applicant further argues that Prudhon teaches a shielded cable while the claimed invention recites an unshielded cable. In response, Prudhon is used only to support the position of using a central rod in a twisted pair cable to reduce crosstalk among the pairs, therefore Prudhon does not have to disclose the cable being an unshielded cable.

Summary

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Communication

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chau N Nguyen whose telephone number is 308-0693. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on (703) 308 3682. The fax

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phone numbers for the organization where this application or proceeding is assigned are (703) 308 3431 for regular communications and (703) 305 1341 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



Chau N Nguyen
Primary Examiner
Art Unit 2831

CN
November 9, 2001